09/578,693
Updated Search
L.Cook 6/1/06

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(FILE 'HOME' ENTERED AT 12:48:21 ON 01 JUN 2006)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 12:48:41 ON 01 JUN 2006

L1 10792 S (FATTY ACID BINDING PROTEIN)
L2 3471 S L1 AND LIVER?
L3 1477 DUPLICATE REMOVE L2 (1994 DUPLICATES REMOVED)
L4 133 S L3 AND KIDNEY?
L5 48 S L4 AND PD<2000
L6 2 S L5 AND URINE?
L7 1410 S (LIVER FATTY ACID BINDING PROTEIN)
L8 55 S L7 AND KIDNEY?
L9 32 S L8 AND PD<2000
L10 15 DUPLICATE REMOVE L9 (17 DUPLICATES REMOVED)
L11 687 S (HEME BINDING PROTEIN)
L12 20 S L11 AND KIDNEY?
L13 9 DUPLICATE REMOVE L12 (11 DUPLICATES REMOVED)

FILE 'BIOSIS, CAPLUS, EMBASE, MEDLINE, JAPIO' ENTERED AT 13:09:08 ON 01 JUN 2006

L14 32 S L3 AND URINE?
L15 32 DUPLICATE REMOVE L14 (0 DUPLICATES REMOVED)
L16 2 S L15 AND PD<2000
L17 17 S L7 AND URINE?
L18 11 DUPLICATE REMOVE L17 (6 DUPLICATES REMOVED)
L19 7 S L11 AND URINE?
L20 2 DUPLICATE REMOVE L19 (5 DUPLICATES REMOVED)

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L1         10792 S (FATTY ACID BINDING PROTEIN)
L2          3471 S L1 AND LIVER?
L3          1477 DUPLICATE REMOVE L2 (1994 DUPLICATES REMOVED)
L4           133 S L3 AND KIDNEY?
L5            48 S L4 AND PD<2000
L6             2 S L5 AND URINE?
L7          1410 S (LIVER FATTY ACID BINDING PROTEIN)
L8            55 S L7 AND KIDNEY?
L9            32 S L8 AND PD<2000
L10           15 DUPLICATE REMOVE L9 (17 DUPLICATES REMOVED)
L11          687 S (HEME BINDING PROTEIN)
L12           20 S L11 AND KIDNEY?
L13            9 DUPLICATE REMOVE L12 (11 DUPLICATES REMOVED)

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ANSWER 7 OF 15 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
DUPLICATE 3
AN 1994:494184 BIOSIS
DN PREV199497507184
TI Studies on the efflux of heme from biological membranes.
AU Liem, Heng H.; Noy, Noa; Muller-Eberhard, Ursula [Reprint author]
CS Dep. Pediatr./Hematol.-Oncol., Cornell Univ. Med. Coll., 525 E. 68th St. N-804, New York, NY 10021, USA
SO Biochimica et Biophysica Acta, (**1994**) Vol. 1194, No. 2, pp. 264-270.
CODEN: BBACAQ. ISSN: 0006-3002.
DT Article
LA English
ED Entered STN: 28 Nov 1994
Last Updated on STN: 29 Nov 1994
AB It is unknown how heme is distributed intracellularly from its site of synthesis in the mitochondria to other organelles. In previous work (Biochemistry 23, 3715, 1984) the transfer of heme from lipid bilayers to soluble proteins had been found to be independent of the recipient proteins' affinity for heme. Here, we investigated whether proteins are involved in the transfer of heme from biological membranes into aqueous media. We followed the release of 14C-labeled heme, from mitochondria preloaded with the heme, to BSA and found that only about 28% of the heme was extracted on the first wash. After the third wash 35-50% of the heme that had been partitioned into the membranes was extracted. Fourth and fifth washes with BSA or a cytosolic heme-binding protein (HBP, also known as **liver fatty acid binding protein**) removed only insignificant amounts of 14C-labeled heme. Similarly, a large portion of the preloaded 14C-labeled heme could not be extracted from a variety of isolated membranes (inner and outer mitochondrial membranes, plasma membranes of liver cells, **kidney** cortex cells and erythrocyte membranes). By contrast, essentially all (14 C)palmitate preloaded in biological membranes and all 14C-labeled heme preloaded in synthetic membranes was released to albumin (Biochemistry 23, 3715, 1984). These observations suggest that, in general, heme associates with membrane components which can be distinguished into two compartments. One compartment releases its heme spontaneously, while another compartment binds heme so tightly that a specific process has to be evoked for its release.
CC Cytology - Animal 02506
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Porphyrins and bile pigments 10065
Biophysics - Membrane phenomena 10508
Metabolism - Porphyrins and bile pigments 13013
IT Major Concepts
Biochemistry and Molecular Biophysics; Cell Biology; Membranes (Cell Biology); Metabolism
IT Chemicals & Biochemicals
HEME
IT Miscellaneous Descriptors
BOVINE SERUM ALBUMIN; HEME TRANSFER; HEME-BINDING PROTEIN; MITOCHONDRIA
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
rat
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN 14875-96-8 (HEME)

ANSWER 12 OF 15 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN DUPLICATE 6

AN 1989:182961 BIOSIS

DN PREV198987094227; BA87:94227

TI IMMUNOCHEMICAL QUANTITATION OF FATTY-ACID-BINDING PROTEINS I. TISSUE AND INTRACELLULAR DISTRIBUTION POSTNATAL DEVELOPMENT AND INFLUENCE OF PHYSIOLOGICAL CONDITIONS ON RAT HEART AND LIVER FABP.

AU PAULUSSEN R J A [Reprint author]; GEELEN M J H; BEYNEN A C; VEERKAMP J H

CS DEP BIOCHEM, UNIV NIJMEGEN, PO BOX 9101, 6500 HB NIJMEGEN, NETHERLANDS

SO Biochimica et Biophysica Acta, (**1989**) Vol. 1001, No. 2, pp. 201-209.
CODEN: BBACAQ. ISSN: 0006-3002.

DT Article

FS BA

LA ENGLISH

ED Entered STN: 9 Apr 1989
Last Updated on STN: 9 Apr 1989

AB Antisera against rat heart and **liver fatty acid-binding protein** (FABP) were applied in Western blotting analysis and ELISA to assess their tissue and intracellular distribution, and the influence of development, physiological conditions and several agents on the FABP content of tissue cytosols. The data obtained are compared with the oleic acid-binding capacity. Heart FABP is found in high concentrations in heart, skeletal muscles, diaphragm and lung, and in lower concentrations in **kidney**, brain and spleen, whereas liver FABP is limited to liver and intestine. In heart and liver, FABP is only present in the cytosol. The FABP content of both heart and liver shows a progressive increase during the first weeks of postnatal development, in contrast to their constant oleic acid-binding capacity. The reciprocally declining α-fetoprotein content of both tissues may partially account for the complementary fraction of the fatty acid-binding capacity. The FABP content and the fatty acid-binding capacity of adult heart and liver were in good accordance under various physiological conditions. Addition of clofibrate to the diet induces an increase of liver FABP content, whereas feeding of cholesterol, cholestyramine, mevinolin or cholate caused a marked decrease. The significance of the combined determination of fatty acid-binding capacity and FABP content (by immunochemical quantitation and blotting analysis) is indicated.

CC Microscopy - Histology and histochemistry 01056
Cytology - Animal 02506
Biochemistry studies - General 10060
Biochemistry studies - Proteins, peptides and amino acids 10064
Biochemistry studies - Lipids 10066
Anatomy and Histology - Microscopic and ultramicroscopic anatomy 11108
Metabolism - Lipids 13006
Metabolism - Proteins, peptides and amino acids 13012
Nutrition - General dietary studies 13214
Nutrition - Sterols and steroids 13226
Digestive system - Physiology and biochemistry 14004
Cardiovascular system - Physiology and biochemistry 14504
Development and Embryology - Morphogenesis 25508
Immunology - General and methods 34502

IT Major Concepts
Cardiovascular System (Transport and Circulation); Cell Biology; Development; Digestive System (Ingestion and Assimilation); Metabolism; Morphology; Nutrition

IT Miscellaneous Descriptors
LIPID METABOLISM OLEIC ACID ALPHA FETOPROTEIN DIET CLOFIBRATE CHOLESTEROL CHOLESTYRAMINE MEVINOLIN CHOLATE

ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia

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Rodentia; Mammalia; Vertebrata; Chordata; Animalia

Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

RN 112-80-1 (OLEIC ACID)
637-07-0 (CLOFIBRATE)
57-88-5 (CHOLESTEROL)
11041-12-6 (CHOLESTYRAMINE)
75330-75-5 (MEVINOLIN)
81-25-4 (CHOLATE)

Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

RN 112-80-1 (OLEIC ACID)
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81-25-4 (CHOLATE)